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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/746,854	12/22/2000	James Morrow	83336.0476	7292

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EXAMINER	
PATEL, NIKETA I	

ART UNIT	PAPER NUMBER
2181	

NOTIFICATION DATE	DELIVERY MODE
06/24/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	09/746,854	MORROW ET AL.	
	Examiner	Art Unit	
	NIKETA I. PATEL	2181	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 April 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *39-70* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *39-70* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 April 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/6/2009 has been entered.

Response to Arguments

2. Applicant's arguments filed 4/6/2009 have been fully considered but they are not persuasive. Applicant argues that the prior art of record does not teach a generic device controller system, comprising: a processor, comprising standard non-true real time peripheral device control software; at least one peripheral device requiring true real time peripheral device control; and a generic device controller, coupled between the processor and the at least one peripheral device, for providing true real time peripheral device control for the at least one peripheral device in response to non-true real time control requests from the processor.

Examiner respectfully disagrees with this argument. Swales discloses a generic device controller system, comprising: a processor [figure 3, element 12], comprising standard non-true real time peripheral device control software [column 6, lines 14-28 – host (device master) runs WINDOWS 95/NT]; at least one peripheral device requiring true real time peripheral device control [figure 3, element 14; column 1, line 23-42 – field

devices]; and a generic device controller [figure 3, element 10], coupled between the processor and the at least one peripheral device [figure 3, elements 12, 10, 14], for providing true real time peripheral device control for the at least one peripheral device in response to non-true real time control requests from the processor [column 4, lines 5-21.]

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 39-43, 45-48, 51-54, 56-58, 60-63 and 66-69 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Number: 6,233,626 B1 granted to Swales et al. (hereinafter "Swales".)

5. Referring to claims 39, 56, taking claim 39 as exemplary, Swales discloses a generic device controller system, comprising: a processor [figure 3, element 12], comprising standard non-true real time peripheral device control software [column 6, lines 14-28 – host (device master) runs WINDOWS 95/NT]; at least one peripheral device requiring true real time peripheral device control [figure 3, element 14; column 1, line 23-42 – field devices]; and a generic device controller [figure 3, element 10], coupled between the processor and the at least one peripheral device [figure 3,

elements 12, 10, 14], for providing true real time peripheral device control for the at least one peripheral device in response to non-true real time control requests from the processor [column 4, lines 5-21.]

6. Referring to claim 40, Swales discloses the system of Claim 39, wherein: the processor does not provide true real time peripheral device control; and the generic device controller provides true real time peripheral device control [column 4, lines 5-21.]

7. Referring to claim 41, Swales discloses the system of Claim 40, wherein: the processor does not comprise a true real time kernel; and the generic device controller provides true real time peripheral device control [column 3, lines 11-23, 46-53, column 6, lines 14-28 and column 1, lines 23-42, the COM-adapter allows a host running Windows OS to control field devices which are using real time protocol such as MODBUS, the host does runs Windows operating system, Windows operating system do not run true real time kernel; also see column 3, 15-23, which specifically discloses that real time component are not required, instead standard network components are shared.]

8. Referring to claims 42, 57, Swales discloses the system of Claim 40, wherein: the processor does not comprise a layered true real time operating system; and the generic device controller produces true real time peripheral device control [column 3, lines 11-23, 46-53, column 6, lines 14-28 and column 1, lines 23-42, the COM-adapter allows a host running Windows OS to control field devices which are using real time protocol such as MODBUS; also see column 3, 15-23, which specifically discloses that

real time component are not required, instead standard network components are shared.]

9. Referring to claims 43, 58, Swales discloses the system of claim 39 wherein: the processor and the generic device controller communicate using a single universal communications stream [figure 3; column 3, lines 15-23, 46-53, COM-adapter allows the field master (i.e., the host device) to control field devices in real time without special operating system; column 4, lines 5-21]; the at least one peripheral device communicates using a data protocol and associated data specific to the at least one peripheral device [figure 3; column 3, lines 15-23, 46-53, COM-adapter allows the field master (i.e., the host device) to control field devices in real time without special operating system; column 4, lines 5-21]; and the generic device controller: converts between the single universal communications stream and the specific protocol and associated data for communicating with the at least one peripheral device, and communicates with the at least one peripheral using the specific data protocol and associated data [figure 3; column 3, lines 15-23, 46-53, COM-adapter allows the field master (i.e., the host device) to control field devices in real time without special operating system; column 4, lines 5-21.]

10. Referring to claims 45, 60, Swales discloses the system of claim 43, wherein the universal communications stream is a multi-drop communications protocol [figure 3, element 18; column 5, lines 45-47 and column 6, lines 42-52 – Ethernet network.]

11. Referring to claims 46, 61, Swales discloses the system of claim 45, wherein the universal communications stream is one of: (a) ATM, (b) Ethernet, (c) CAN, (d) 12C,

and (e) multi-drop serial communications [figure 3, element 18; column 5, lines 45-47 and column 6, lines 42-52 – Ethernet network.]

12. Referring to claims 47, 62, Swales discloses the system of claim 41, wherein the universal communications stream is a network protocol [figure 3, element 18; column 5, lines 45-47 and column 6, lines 42-52 – Ethernet network.]

13. Referring to claims 48, 63, Swales discloses the system of claim 47 wherein the universal communications stream is one of: (a) Ethernet, (b) ATM, (c) WAN, (d) Infrared, (e) Serial, and (f) fiber optics [figure 3, element 18; column 5, lines 45-47 and column 6, lines 42-52 – Ethernet network.]

14. Referring to claims 51, 66, Swales discloses the system of claim 39, wherein the processor comprises a non-true real time operating system [column 5, lines 1-6, 'Windows 95, 3.1, NT operating system' i.e., Win32 environment non-true real time operating system.]

15. Referring to claims 52, 67, Swales discloses the system of claim 51 wherein the non-true real time operating system is one of: (a) Windows NT, (b) Windows 98, (c) Windows 2000, (d) LINUX, (e) WinCE, (f) QNX, (g) DOW, (h) VXWorks, (i) Whistler, and (j) Whistler embedded [column 5, lines 1-6, 'Windows 95, 3.1, NT operating system' i.e., Win32 environment non-true real time operating system.]

16. Referring to claims 53, 68, Swales discloses the system of claim 51 wherein the non-true real time operating system is a Win32 environment [column 5, lines 1-6, 'Windows 95, 3.1, NT operating system' i.e., Win32 environment non-true real time operating system.]

17. Referring to claims 54, 69, Swales discloses the system of claim 53 wherein the non-true real time operating system if one of: (a) Windows NT, (b) Windows 98, (c) Windows 2000, and (d) WinCE [column 5, lines 1-6, 'Windows 95, 3.1, NT operating system' i.e., Win32 environment non-true real time operating system.]

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

19. Claims 49-50 and 64-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swales as applied to claims 39, 56 above, and further in view of Evoy et al. U.S. Patent Number: 5,958,020 (hereinafter "Evoy".)

20. Referring to claims 49, 50, 64-65 Swales discloses the system of claim 41, wherein the universal communications stream comprises a Universal Serial Bus (USB) data and communications protocol and further comprising a USB hub coupled between the processor and the generic device controller. *Evoy* teaches a use of Universal Serial Bus protocol and USB hub between the generic device controller unit system and the processor [see Evoy column 2, lines 46-60 and column 1, lines 23-43] because USB connects peripheral devices to the resources of the computer system without consuming the input output resources of the computer system and also provides for automatic USB peripheral device configuration and eliminates computer system resource conflicts.

One of ordinary skill in the art at the time of applicant's invention would have clearly recognized that it is quite advantageous for the system of Swales to be able to automatically configure peripheral devices in order to eliminate computer system resource conflicts by using USB protocol. It is for this reason that one of ordinary skill in the art would have been motivated to implement USB protocol in the system of Swales to eliminate computer system resource conflicts and saving input output resources.

21. Claims 44, 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swales.

22. Referring to claims 44, 59, Swales discloses the system of claim 43 however does not set forth the limitation of wherein the specific data protocol and associated data is one of: (a) I2C, (b) RS-232 serial port, (c) RS-422/RS-485 serial port, (d) LPT parallel printer port, (e) 8-bit bi-directional data ports, and (f) general purpose I/O port interface.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention that implementation of above stated ports would improve system functionality and provide users with option of using various communication ports. It is for this reason one of ordinary skill in the art would have been motivated to implement the limitation of wherein the specific data protocol and associated data is one of: (a) I2C, (b) RS-232 serial port, (c) RS-422/RS-485 serial port, (d) LPT parallel printer port, (e) 8-bit bi-directional data ports, and (f) general purpose I/O port interface.

23. Claims 55, 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swales as applied to claims 39, 56 above, and further in view of Johnson et al. U. S. Patent Number: 6,622,185 B1 (hereinafter 'Johnson'.)

24. Referring to claims 55, 70, Swales discloses the system of claim 39 however does not set forth the limitation of implemented in at least one of a plurality of networked gaming machines. Johnson teaches a use of non-true real time gaming computer [Johnson figure 2, element 201 and column 6, lines 8-45] in communication with a true-real time computer [Johnson figure 2, element 213 and column 6, lines 8-45] for providing a real-time programmable interface to a general-purpose non-real-time computing system [Johnson column 5, line 62 to column 6, line 7.]

One of ordinary skill in the art at the time of applicant's invention would have clearly recognized that it is quite advantageous for the non-true real time computer of *Swales* to have a plurality of gaming machines networked in a gaming machine network environment, each of the plurality of gaming machines having a non-true real time computer having a gaming processor, a non-true real time operating system, and a non-true real time-enabled circuit board, in order to for provide a real-time programmable interface to a general-purpose non-real-time computing system. It is for this reason that one of ordinary skill in the art would have been motivated to implement the non-true real time computer of *Swales* with a plurality of gaming machines networked in a gaming machine network environment, each of the plurality of gaming machines having a non-true real time computer having a gaming processor, a non-true real time operating system, and a non-true real time-enabled circuit board.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NIKETA I. PATEL whose telephone number is (571)272-4156. The examiner can normally be reached on M-F 8:00 A.M. to 6:00 P.M, with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alford Kindred can be reached on (571) 272 4037. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Niketa I. Patel/
Primary Examiner, Art Unit 2181